

Amendments to the Specification:

Please replace the title of the patent application as follows:

~~PROCESS FOR MANUFACTURING Al_2O_3 MEMBRANE~~

PROCESS FOR MANUFACTURING A CAPACITIVE VACUUM MEASURING CELL

On page 10 of the original patent application specification as filed, replace the first full paragraph (lines 2 – 13) with the following revised paragraph:

“ FIG. 3 shows an enlarged cross-sectional detail of the edge zone of a measuring cell. The seal (3) on both sides of the membrane (2) defines, as mentioned above, the distance of the two housings (1 and 4). This seal consists, for example and preferably, of glass paste that is easy to handle and can, for example, be applied by means of screen printing. In a typical measuring cell with an external diameter of 38 mm and a free internal membrane diameter of 30 mm, the distance (3) is approx 2 to 50 μm , preferably 12 to 35 μm . In this example, the first housing (1) has a thickness of 5 mm, and the second housing (4) a thickness of 3 mm. The inner area of the second housing (4) is preferably designed with an approx. 0.5 mm deep recess, as shown in FIG. 2, in order to enlarge the measurement vacuum chamber (26). On the reference vacuum side, the membrane (2) and the housing (1) are each coated with an electrically conductive film (7). These two films are not electrically interconnected. Films (7) can, for example, be painted on, printed on, sprayed on, or be deposited by means of a vacuum process. Preferably, they are deposited by a vacuum process such as by evaporation coating or sputtering. Particularly suited as a film material is gold, which is deposited, for example, with a film thickness of 1 μm and is subsequently thinned down to a few nanometers, preferably to 5 nm, by means of sputter etching. In this way, the film thickness can be defined so that it is thin enough and is free of stress. The electrical connections of the membranes (7) are preferably established with vacuum-tight, electrically conducting feedthroughs (6), preferably through the housing (1) where they can subsequently be connected to the evaluation electronics. The evacuation line which leads through the first housing plate (1) and the getter arrangement are not shown in FIG. 3.”

Also on page 10 of the original patent application specification as filed, insert the following new

paragraph between lines 13-14 of original page 10, i.e., just before the last paragraph on such page:

“ In order to maintain a stable reference vacuum for a long period of time in reference vacuum chamber 25, a getter 10 is provided, as shown in FIG. 4. This getter is preferably a non-evaporating type getter in order to keep any particles out of the reference vacuum chamber 25. The housing 1 includes a getter chamber 13 formed therein for containing getter 10; getter chamber 13 connects via connection line 14 to reference vacuum chamber 25. A vacuum pump is connected to the reference vacuum chamber 25. The connection 14 and the volume 13 for accommodating getter 10 are closed by cover 8; cover 8 is preferably made of metal or ceramic material. Reference vacuum chamber is evacuated so that getter 10 is activated and de-gassed. After evacuation, cover 8 is sealed to housing 1 with sealing material 9. The sealing material can, for example, be glass brazing material. Spring 11 presses getter 10 against cover 8 and ensures that getter 10 is in good thermal contact with the cover 8.”